LATE PLEISTOCENE-HOLOCENE OCCURRENCE OF *CHAEROPUS* (PERAMELIDAE) AND *MACROTIS* (THYLACOMYIDAE) FROM QUEENSLAND. *Memoirs of the Queensland Museum 51(1): 38.* Recent collections of vertebrate remains from cave systems in central-eastern and north-eastern Queensland have yielded diverse small-sized mammalian taxa. Within these faunas, four perameloid genera are present and include species of *Isoodon, Perameles, Chaeropus* and *Macrotis*. The presence of *Perameles* and *Isoodon* in these deposits is not surprising because they occur at the localities in the present day. However, Hocknull (2005) and Price (2004) report on the most easterly extent of *Perameles bougainville*, a typically arid distributed taxon. In addition, the presence of *Macrotis* and *Chaeropus* significantly increases the easterly distributions of these distinctly arid-adapted taxa. Muirhead & Godthelp (1995) reported on fossil *Chaeropus ecaudatus* from Chillagoe, northeastern Queensland, considering the age of the material to be late Pleistocene. Hocknull (2005) reported late Pleistocene *Chaeropus ecaudatus* and *Macrotis lagotis* from Mount Etna, central eastern Queensland. A new locality has yielded a specimen of *Macrotis* Thomas, 1887 and is presented herein. The locality (QML1287) is considered to be Late Pleistocene - Holocene in age based on the subfossil preservation of the excavated specimens, distinctly modern associated fauna, and the lack of associated megafauna.

Family THYLACOMYIDAE (Bensley, 1903)

Macrotis sp. (Fig 1)

Locality. QML1287, 'Dodgey's Cave', Dosey Limestone Kart, Broken River Province, 120km NW Charters Towers.

Description. QMF41971 is a left M^2 with little ware, broken root base. Max. length, 4.66mm; ant. width, 3.42mm; post. width, 2.67mm. Bulbous, sub-rectangular tooth in occlusal aspect, bearing three distinct anterior cusps (protocone, paracone and conical stylar cusp '?B'); two distinct posterior cusps (metacone and conical stylar cusp '?D'). Metaconule absent. Open, dumbbell-shaped roots. Anterior cingulum present.

Remarks. Identification of the tooth as *Macrotis* was based on the massively inflated, rectangular-ovoid occlusal crown, dumbell-shaped molar roots, absence of the metaconule and conical stylar cusps. Muirhead (1994) listed characteristics of the dentition for both species of *Macrotis*, *M. lagotis* and *M. leucura*. Unfortunately, comparative specimens of *M. leucura* were not available for study, therefore, verification of *M. leucura* requires additional specimens and a morphometric appraisal of both species' dentition.

Figure 2 illustrates the distributions (recent and fossil) of *M. lagotis, M. leucura* and *Chaeropus ecaudatus*. This is the second record of *Macrotis* in the fossil record of Queensland.

FIG 1. QMF41971, LM^2 in occlusal view. Scale bar = 4mm.

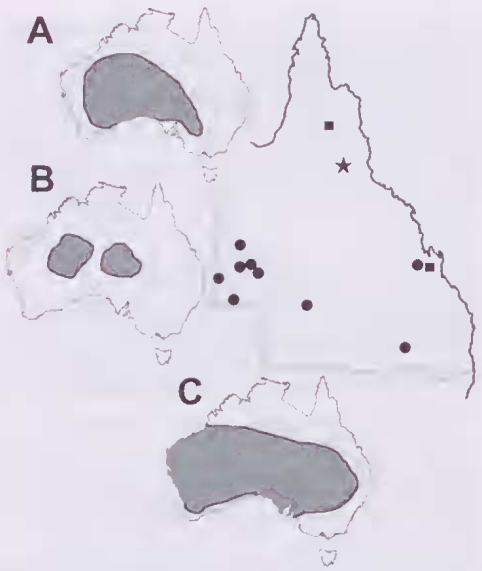

FIG 2. Distribution map of fossil and recent populations of A. *C. ecaudatus* (solid square), B. *M. leucura*, C. *M. lagotis* (solid circle) and *Macrotis* sp. (solid star). Recent bandicoot distributions from Strahan (1998).

The massive difference in the ranges of these three taxa when comparing late Pleistocene-Holocene to pre-European distributions indicates considerable contraction into the arid interior during the Holocene. A more detailed chronology of retraction is required to elucidate the factors influencing such a massive decline prior to European arrival, whether they be climatic, biotic and/or anthropogenic.

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